

*Northeast Million Solar Roofs Initiative
Compendium of Rhode Island Renewable Energy Installations*



United States Department of Energy



Rhode Island State Energy Office



ENTECH Engineering, Inc.

Project One, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric and Wind Energy Systems.

Output: Solar Electric 400 watts,
Wind Electric 300 watts.

Year Installed: 2001



Project Two, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric System.

Output: Solar Electric 480 watts.



Project Three, Block Island:

Bed & Breakfast

System Description: Grid Isolated Solar Electric System.

Output: Solar Electric 916 watts.



Project Four, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric System and Wind Energy System.

Output: Solar Electric 1,440 watts, Wind Electric 900 watts.



Project Five, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric System

Output: Solar Electric 3,000 watts,
Wind Electric 600 watts.



Project Six, Block Island:

US Post Office

System Description: Grid Interconnected Solar Electric System with Battery Backup.

Output: 6,000 watts.



Project Seven, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric and Wind Energy Systems.

Output: Solar Electric 250 watts, Wind 300 watts.



Project Eight, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Nine, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Ten, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Eleven, Block Island:

Residential Home

System Description: Residential Grid
Interconnected Solar Electric System with battery
backup.

Output: 3,080 watts.



Project Twelve, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric and Solar Thermal Systems.

Output: Solar Electric 1,900 watts, Solar Thermal 32 square feet.



Project Thirteen, Block Island:

Marine System

System Description: Example of type of installation.

Output: 64 watts.



Project Fourteen, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 96 square feet.



Project Fifteen, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric System.

Output: 33 watts.



Project Sixteen, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric System and Wind Energy System.

Output: Solar Electric 800 watts, Wind 200 watts.



Project Seventeen, Block Island:

Shellfish Farm

System Description: Grid Isolated Solar Electric System.

Output: 960 watts.



Project Eighteen, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric and Solar Thermal Systems.

Output: Solar Electric 2,000 watts, Solar Thermal 64 square feet.



Project Nineteen, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric System.

Output: 600 watts.



Project Twenty, Block Island:

US Fish and Wildlife

System Description: Grid Isolated Solar Electric and Solar Thermal Systems.

Output: Solar Electric 1,920 watts, Solar Thermal 32 square feet.



Project Twenty-one, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric System.

Output: 600 watts.



Project Twenty-two, Block Island:

Ocean View Pavilion

System Description: Grid Isolated Solar Electric System.

Output: 350 watts.



Project Twenty-three, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Twenty-four, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Twenty-five, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric and Solar Thermal Systems.

Output: Solar Electric 2,000 watts, Solar Thermal 64 square feet.



Project Twenty-six, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 96 square feet.



Project Twenty-seven, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 40 square feet.



Project Twenty-eight, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Twenty-nine, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Thirty, Block Island:

Town of New Shoreham Town Beach:

System Description: Six solar collector, open loop seasonal domestic water heating system for heating shower water. Displaces #2 oil.

Output: 192 square feet.



Project Thirty-one, Block Island:

Town of New Shoreham Hospitality Center

System Description: Solar Thermal System.

Output: 64 square feet.



Project Thirty-two, Block Island:

Town of New Shoreham New Harbor Public Restrooms

System Description: Grid isolated lighting system with occupancy sensors to provide light to a bathroom facility that previously had no power. This project has allowed the facility to stay open until mid-evening.

Output: 100 watts.



Project Thirty-three, Block Island:

BI School

System Description: Grid Interconnected Solar Electric System with Battery Backup.

Output: 5,000 watts.



Project Thirty-four, Block Island:

Marine System

System Description: Example of type of installation.

Output: 64 watts.



Project Thirty-five, Block Island:

Residential Home

System Description: Solar Thermal System. (No Picture Available)

Output: 32 square feet.

Project Thirty-six, Block Island:

Block Island Marine

System Description: One solar powered street light used for safety and security. Owner could not add conventional lighting due to electrical load constraints of existing wire.

Size: Light output 60 watt CFL.



Project Thirty-seven, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric and Solar Thermal Systems.

Output: Solar Electric 1,200 watts, Solar Thermal 64 square feet.



Project Thirty-eight, Block Island:

North Lighthouse

System Description: Grid Isolated Solar Electric and Wind Energy Systems.

Output: Solar Electric 480 watts, Wind 1,000 watts.



Project Thirty-nine, Block Island:

Ocean View Foundation Cullinen House: Facility used for retreats and education.

System Description: Grid Interconnected Solar Electric System with battery backup, and solar assisted radiant floor and domestic water heating system that displaces #2 oil.

Output: Solar Electric 2,000 watts, Solar Thermal 96 square feet.



Project Forty, Block Island:

Residential Home and Apartment

System Description: Solar Thermal System.

Output: 96 square feet.



Project Forty-one, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric System.

Output: 1,440 watts.



Project Forty-two, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric System.

Output: 2,000 watt



Project Forty-three, Block Island:

Residential Home

System Description: Grid Isolated Solar Electric System.

Output: 660 watts.



Project Forty-four, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric System.

Output: 1,440 watts.



Project Forty-five, Block Island:

Residential Home

System Description: Solar Thermal System

Output: 64 square feet.



Project Forty-six, Block Island:

Nature Conservancy

System Description: Grid Interconnected Solar Electric System.

Output: 1,000 watts.

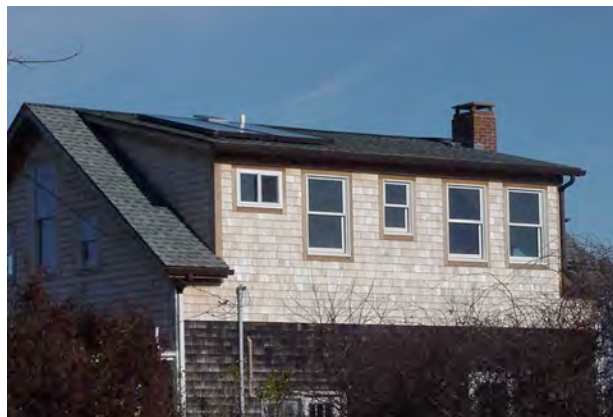


Project Forty-seven, Block Island:

Residential Home

System Description: Solar Thermal System.

Output: 64 square feet.



Project Forty-eight, Block Island:

Residential Home

System Description: Grid Interconnected Solar Electric System. **Output:** 800 watts. (No Picture Available)

Project Forty-nine, Coventry:

Aperion Foundation

System Description: Solar Electric Grid Interconnected.

Output: 2,010 watts.



Project Fifty, Middletown:

BJ's Wholesale Club

System Description: Solar Electric Grid Interconnected.

Output: 43,000 watts.



Project Fifty-one, Warren:

TPI Inc.

System Description: Solar Electric
Grid Interconnected.

Output: 24,900 watts.



Project Fifty-two, Wakefield:

Residential Home

System Description: Solar Domestic Hot Water.

Output: 64 square feet.

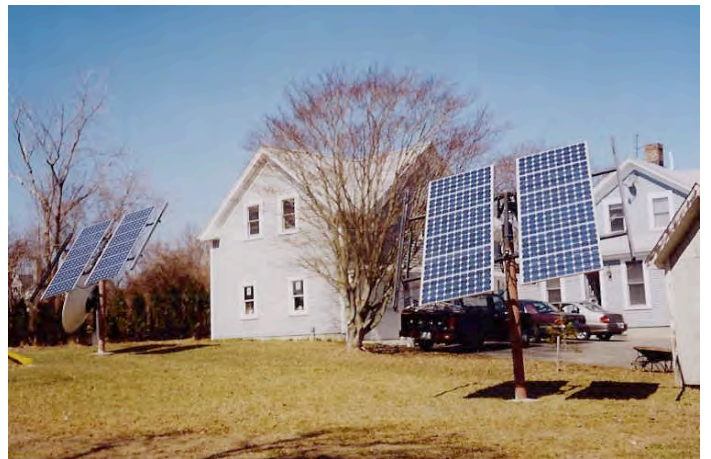


Project Fifty-three, Middletown:

Residential Home

System Description: Solar Electric Grid Interconnected.

Output: 120 kW.



Project Fifty-four, Portsmouth:

Residential Home

System Description: Solar Electric Grid Interconnected.

Output: 5 kW.



Project Fifty-five, Warwick

Residential Home

System Description: Solar Electric Grid Interconnected.

Output: 1,270 watts.



Project Fifty-six, Bristol:

Roger Williams Zoo

System Description: Solar Electric Grid Interconnected.

Output: 2,010 watts.



Project Fifty-seven, Foster:

Residential Home

System Description: Solar Electric Grid Interconnected and Solar Domestic Hot Water.

Output: 850 watts and 40 square feet.



Project Fifty-eight, Block Island:

Residential Home

System Description: Solar Domestic Hot Water.
(Solar Electric System is Project Forty-two)

Output: 64 square feet.



Project Fifty-nine, Wakefield:

Residential Home

System Description: WECS.

Output: 10,000 watts



Project Sixty, Charlestown:

Residential Home

System Description: Solar Electric Grid-Isolated.

Output: 1,200 watts



Project Sixty-one, Westerly:

Residential Home

System Description: Solar Electric Grid-Interconnected.

Output: 3,160 watts.



Project Sixty-two, Richmond:

Residential Home

System Description: Solar Electric Grid-Interconnected.

Output: 2,850 watts.



Project Sixty-three, Exeter:

Residential Home

System Description: Wind Electric Grid-Interconnected.

Output: 10,000 watts



Project Sixty-four, North Kingstown:

Residential Home

System Description: Solar Electric Grid-Interconnected.

Output: 1,980 watts



Project Sixty-five, Charlestown:

Residential Home

System Description: Solar Electric Grid-Interconnected.

Output: 3,420 watts



Project Sixty-six, Cranston:

Residential Home

System Description: Solar Electric Grid-Interconnected.

Output: 3,450 watts



Project Sixty-seven, West Kingston:

Commercial

System Description: Solar Electric Grid-Interconnected.

Output: 4,400 watts



Project Sixty-eight, West Kingston:

Commercial

System Description: Solar Electric Grid-Interconnected.

Output: 6,000 watts



Project Seventy, Wakefield:

Residential Home

System Description: Solar Domestic Hot Water.

Output: 96 square feet



Project Seventy-one, Bristol:

University

System Description: Solar Electric Grid-Interconnected

Output: ~4,000 Watts



Project Seventy-two, North Kingston:

Residential Home

System Description: Solar Electric Grid-Interconnected

Output: 4,000 Watts



Project Seventy-three, Barrington:

College

System Description: Solar Electric Grid-Interconnected

Output: 8,000 Watts



Project Seventy-four, Narragansett:

Residential Home

System Description: Solar Electric Grid-Interconnected

Output: 5,300 Watts



Project Seventy-five, Cranston: (Park View Middle School) {Photo will be added}

School

System Description: Solar Electric Grid-Interconnected

Output: 2,000 Watts

Project Seventy-six, North Scituate: (Ponaganset High School) {Photo will be added}

School

System Description: Solar Electric Grid-Interconnected

Output: 2,000 Watts

Project Seventy-seven, Smithfield: (Gallagher Middle School) {Photo will be added}

School

System Description: Solar Electric Grid-Interconnected

Output: 2,000 Watts

Project Seventy-eight, Burrillville: (Burrillville High School) {Photo will be added}

School

System Description: Solar Electric Grid-Interconnected

Output: 2,000 Watts

Project Seventy-nine, Warwick: (Warwick Vets) {Photo will be added}

School

System Description: Solar Electric Grid-Interconnected

Output: 5,000 Watts

Project Eighty, Wickford: (Wickford Middle School) {Photo will be added}

School

System Description: Solar Electric Grid-Interconnected

Output: 2,000 Watts

Project Eighty-one, Westerly

Residential Home

System Description: Solar Electric Grid-Interconnected

Output: 5,300 Watts



Project Eighty-two, Providence

Non-Profit

System Description: Solar Electric Grid-Interconnected

Output: 10,000 Watts



Project Eighty-three, Providence

Business

System Description: Solar Electric Grid-Interconnected

Output: 28,800 Watts



Project Eighty-four, Charlestown

Residential Home

System Description: Solar Electric Grid-Interconnected

Output: 3,300 Watts



Project Eighty-five, Charlestown

Residential Home

System Description: Solar Electric Grid-Interconnected

Output: 1,200 Watts



Projects Installed, Capacity and Energy

Funded Technology	Project Number	Capacity	Energy
Wind	7	24,200 watts	46,160 kWh
Solar Electric			
On-grid	<i>38</i>	<i>284,641 watts</i>	<i>446,884 kWh</i>
Off-grid	<u><i>19</i></u>	<u><i>9,907 watts</i></u>	<u><i>15,078 kWh</i></u>
Subtotal solar electric	57	294,548 watts	451,962 kWh
Subtotal Electric	64	318,748 watts	498,122 kWh
Solar Thermal	<u>25</u>	1,704 sq. feet	561 MMBTUs
Total All Projects	89		

Pollution Avoided Over 25 Year Life, lbs

CO2	SOx	NOx
2,628,647	2,201	3,102